DOCUMENT RESUME

ED 218 380 UD 022 310

AUTHOR Ramirez, Manuel, III
TITLE Cognitive Styles and Cultural Diversity.
PUB DATE 22 May 82
NOTE 15p.; Paper presented at the Annual Meeting of the American Educational Research Association (New York, NY, Mar 19-23, 1982). Some sections may be marginally legible due to small print.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Achievement; *Cognitive Style; Cultural Influences; Cultural Pluralism; Early Childhood Education; Educational Improvement; *Individual Characteristics; *Minority Group Children; *Multicultural Education; Socialization; Student Evaluation; Teacher Attitudes; *Teaching Methods
IDENTIFIERS *Field Dependence Independence; *Field Sensitivity (Teaching)

ABSTRACT

Research indicates that minority students are more "field sensitive" and less "field independent" than non-minority students in their approach to learning. This means that minority students are more group oriented, more sensitive to the social environment, more responsive to adult models, less competitive, less sensitive to spatial incursions by others, less comfortable in trial and error situations, and less interested in the details of non-social tasks. Differences in cognitive styles, which are greatly influenced by cultural and family socialization, must be considered in improving educational programs. A cognitive styles framework would be useful in developing multicultural education that reinforces familiar ways of learning and at the same time encourages flexibility in cognitive style by introducing students to new ways of learning. Learning experiences for multicultural educational programs based on this framework have been developed from assessments of students' learning experiences and preferences gathered through direct observation rather than through traditional research and testing tools. In schools where such programs have been tried out, program participants have performed better on achievement tests than non-participants of comparable background and have shown improvement in self esteem and respect for cultural diversity. Furthermore, teachers involved in the program have demonstrated increased sensitivity to individual differences among children. (Author/MJL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED218380

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

- ☐ This document has been reproduced as received from the person or organization originating it.
- ☑ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Manuel Ramirez III

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Cognitive Styles and Cultural Diversity

Manuel Ramirez III

The University of Texas at Austin

Do minority students have a "style of learning" that is different from mainstream students? Are minority students really any different from other students in the way they learn? If such differences do exist, how have they developed? and what can or should educators do to be responsive to these differences?

The concept of cognitive style or learning styles of minority and other students is one easily oversimplified and misunderstood or misinterpreted. Unfortunately, it has been used to stereotype minority students or to further label them rather than to identify individual differences that are educationally meaningful. One of the purposes of this paper is to examine some of the assumptions concerning cognitive styles and minority students, and to point to some ways toward useful applications of the construct in multiethnic education.

UD 022 310

Do minority students have a "style of learning" that is different from mainstream students? Are minority students really

any different from other students in the ways they learn? Research reported by Ramirez and Castañeda[1], Kagan and Buriel[2], Keogh, Welles and Weiss[3], and others indicates that on the average young Mexican-American, Black and some other minority students are more group-oriented, more sensitive to (and distracted by) the social environment and more positively responsive to adult modelling than non-minority students are on the average. Some research has shown that these behaviors, elsewhere grouped and labelled "field sensitive," often go together to describe a general approach to learning. Furthermore, research data describes minority students as being, on the average, less competitive, less sensitive to spatial incursions by others, less comfortable in trial and error situations and less interested in fine details of concepts, materials or tasks that are non-social. These behaviors also fall together frequently, have been labelled as describing a "field independent" approach to learning—that is, minority students frequently show a less field independent orientation to learning than mainstream students.

Recognition and identification of these average differences have had both positive and negative effects in education. The positive effect has been development of awareness of the types of learning that our public schools tend to foster—more often field independent and discovery oriented than field sensitive and demonstration oriented or even mixed in approaches. This awareness may be one of the first steps toward improving instruction

for individual students. Second, the fact that minority students may more often display preferences for field sensitive learning approaches has underscored one of the ways in which public education has not been responsive to minority students and has documented an important need in our attempts to provide culturally appropriate and multicultural education.

The dissemination of research information on cognitive styles has also had a negative effect in some cases, primarily arising from common problems associated with looking at mean differences. That is, by using averages to describe differences between groups, the dangers of stereotyping are more likely. The great diversity within any culture is ignored, and where a construct should be used as a tool for individualization, it becomes yet another label for categorizing and evaluating. Furthermore, the theoretical construct seems to have been applied in some cases without regard for the contribution of subject matter and situation to the student's learning behaviors. That is, the situational aspects that may contribute significantly to the variance have not always been sufficiently examined when applying the construct in educational practice.

Not the least of the potential contributions of cognitive styles research to multiethnic education is a framework from which to look at and be responsive to diversity within cultures as well as between cultures, that is, a framework that will assist in implementing a program that respects individual differences and

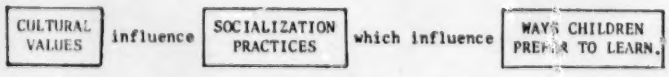
individuals' learning preferences as they may interact with subject matter, situation and educational staffing.

That this may be an important means of validating and respecting cultural as well as individual differences has been discussed by Ramirez and Castañeda in their model of cultural effects on socialization and consequently on learning style preferences. Clearly, the development of a set of learning preferences is a complicated matter. However, it is not unreasonable to expect child socialization to contribute to this development. The Ramirez and Castañeda model focusses on child socialization variables and effects that culture may have on socialization practices or styles. Take, for example, the types of concept development that families might encourage in their children. One family may emphasize the importance of people—about how people relate to each other, about who does what in the family. The child in this family may learn a lot about motivation—about why people do certain things. When they learn about things like cooking, cars, vacuum cleaners or sewing machines, they may learn their functions in relation to how people use them. The children may learn many things by modeling what they see older people doing.

Another family may encourage the children to find things out for themselves at an early age. Children from such families may have learned to work things out for themselves by trial and error and will enjoy "experiments" with materials—but may not enjoy

learning concepts which require careful and exact observation and imitation. They may not learn to feel themselves a part of a group as early as children from the family that encourages more field sensitive learning.

Clearly, the task, situation and materials inflence the ways that children are encouraged to learn or behave, and few families encourage only field independent or field sensitive learning, even though on the average they may use one type of strategy more than the other. The predominant or general teaching style of a family may be of basic importance in deciding the direction a child's learning preferences may take. Insofar as these teaching styles reflect a certain set of values held by the parents and family, values that in many cases are clearly culturally determined, one may posit that cultural differences in learning style preferences develop through children's early experiences.

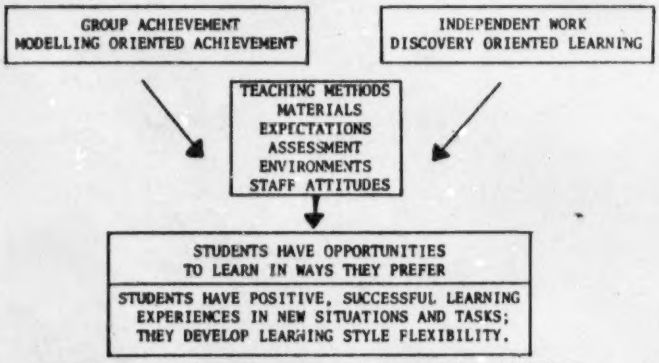


Implications for teaching

What goals can a cognitive styles framework help multiethnic education achieve? What are some ways to accomplish these goals? Two major goals form the core of a cognitive styles framework in multiethnic education: (1) To utilize and extend the strengths

and learning characteristics that each individual student has developed through previous experience by providing learning situations that reinforce the student's preferred or familiar ways of learning; (2) To help the student become more comfortable and successful functioning in situations and ways that he or she has not previously experienced. The former may be called "providing for students' preferred learning styles;" the latter may be called "encouraging learning style flexibility," or "developing bicognitive functioning."

FIGURE ONE
PLANNED PROVISION OF DIVERSE LEARNING EXPERIENCES



This framework has been used at several preschool and elementary school sites to implement a learning style aspect of multiethnic education. The process that has been field tested is summarized below:

- Assess students' preferred ways of learning and how the student's behaviors change from situation to situation.

- Plan learning experiences that address conceptual or skills or other objectives that incorporate the student's preferred ways of learning, using teaching methods, incentives, materials and situations that are planned according to students' preferences.

- Implement the learning experiences that were planned.

- Evaluate the learning experiences in terms of attainment of conceptual or other goals as well as in terms of observed student behaviors and involvement.

- As the year progresses, plan and implement student participation in learning experiences that require behaviors the student has previously avoided. Incorporate only one aspect of the total experience from the less familiar behaviors at a time—focus on only the reward, the materials, the situation or the task requirements, so that the student utilizes what is familiar and comfortable or motivating as support for the newer learning experience aspects.

- Continue to provide familiar, comfortable successful experiences as well as to gradually introduce the children to learning in new ways.

Child behaviors, teaching behaviors and characteristics of curriculum that can be assessed and used for planning this program appear in Figures 2, 3, and 4 at the end of this paper.

We would like to comment here that this process represents a distinct departure from earlier assessment methods in work dealing with cognitive styles. Earlier methods relied heavily on research tools such as the embedded figures tests and portable rod and frame test. These measures do not meet predictive requirements that would make them useful in educational settings; also, these measures assume that there exists a valid unidimensional construct that has explanatory value, an assumption which is questionable. However, the developers of these programs advise use of direct observation and classroom experience for assessment and planning for addressing goals in learning styles.

The process described above has been included as an important aspect of a bilingual, multicultural program, grades preschool through third. In these programs, the cognitive styles framework has been used to develop administrator, teacher and staff self awareness as well as to work toward the goals specified for children. The cultural backgrounds of the children were respected and used through other strategies as well, including multiethnic social studies curricula and use of Spanish and English for instruction. At the preschool level, the model is in its second year of implementation in south Texas and southern California and is currently (1979-80) being evaluated[4]. At the elementary level, the program has been implemented for several years in a southern California community. Data from evaluations of this program show that by the end of

third grade, math scores of children who participated were six months ahead of those of children of comparable backgrounds in a school without the program. Furthermore, on standardized tests of academic achievement, the participating children performed as well as, and in some cases better than, children in non-participating classes who were from homes of higher SES and more fluent English speaking backgrounds. Children participating in the program have shown annual improvement in self esteem and respect for cultural diversity, while teachers and staff implementing the program have shown increasing sensitivity and awareness of individual differences among children[5,6].

Conclusion

While the application of the field independence, field sensitivity cognitive styles construct in multiethnic education has potential for important contributions and systematic change, the greatest care must be taken to use the concepts as tools for growth and individualization and to avoid their use as labels or stereotypes. Field independence and field sensitivity are not unidimensional, though they were treated as such in the early work on the subject. Furthermore, direct assessment of students' preferences, motivating influences, and study or learning approaches by observation and classroom experience is the preferred mode of assessment, rather than the use of research tools and tests that typified most of the early work. Various ways of

applying the concepts in multiethnic situations need to be developed, described and documented in order to provide evidence of applicability in differing multiethnic situations and communities, with different teachers and staffing patterns, and differing task or curricular requirements. Finally, the goals of multiethnic education must be approached from many perspectives and approaches if its success and advantages are to be ensured.

FOOTNOTES

[1]Ramirez, M., Castañeda, A. - Cultural Democracy, Bicognitive Development, and Education, Academic Press, New York, 1974.

[2]Kagan, S., Buriel, R. - Field dependence-independence and Mexican-American culture and education, Chicano Psychology (Joe L. Martinez, Jr. ed.), pp. 279-328, Academic Press, 1977.

[3]Keogh, B. K., Welles, M. F., & Weiss, A. - Field dependence-independence and problem-solving styles of preschool children. Technical Report, Los Angeles: University of California, 1972.

[4]Ramirez, M., Cox, B., Macaulay, J., Macias, M. - Nuevas Fronteras de Aprendizaje: A bilingual, bicultural preschool program, Teachers' Manual and Curriculum Guide, for bicultural/bilingual preschool programs.

[5]Arce and Associates - Follow Through Program Evaluation/Audit, 1977-78. Arce and Associates, Santa Anna, CA., 1979.

[6]Ramirez, M. and Associates - Annual Report Series, 1971-1978. Culturally Democratic Learning Environments, Follow Through Project, University of California, Riverside and Santa Cruz.

copied from:
Cox, B. and Ramirez, M., Cognitive styles: implications for multiethnic education, in Banks, J. (Ed.), The Future of Multiethnic Education, in press.

FIGURE 1

PLANNED PROVISION OF DIVERSE LEARNING EXPERIENCES

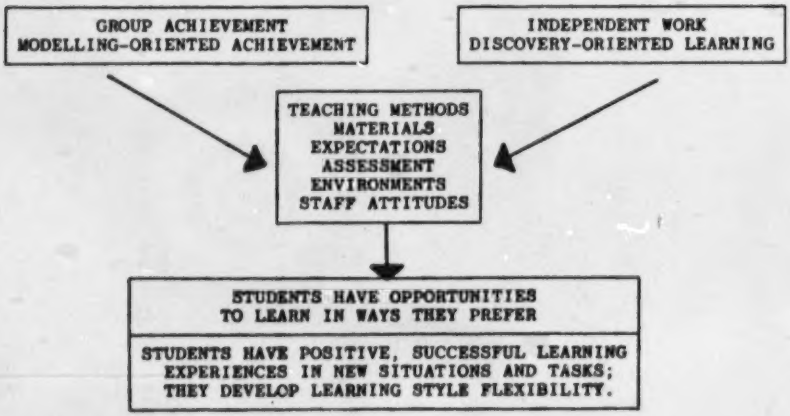


FIGURE 3

FIELD SENSITIVE	FIELD INDEPENDENT
1. Materials readily lend themselves to fantasy, humor, and humanization.	1. Materials draw attention to factual details.
2. Relevant—teacher and students can easily relate personal experiences to curriculum.	2. Materials have high intrinsic appeal; although irrelevant to personal experiences, concepts are sufficiently interesting in and of themselves to sustain student interest.
3. Materials "invite" expressions of feelings from both teacher and students.	3. Materials require a high degree of concentration and methodical attention to subtle detail.
4. Design or format of materials is suitable for cooperative efforts and group projects.	4. Materials are more suitable for individual effort and competition than for cooperative group work.
5. Main principals and solutions are easy for teacher to demonstrate and model; materials given to students call for application of principles.	5. Materials stimulate students to search on their own for generalizations and unique solutions.
6. Lessons prefaced with supportive assurances from teacher and detailed overview of objectives.	6. Lessons prefaced with factual information and reminders of individual effort.
7. Students' attention is drawn to generalizations and global characteristics ("the big picture").	7. Students' attention directed to individual elements and ways of combining these to reach conclusions and generalizations.
8. Curriculum is humanized and adapted to stuendts' personal experiences.	8. Curriculum focuses of factual details.

FIGURE 2

OBSERVABLE BEHAVIORS

CODE: ☐ NEVER ☑ SOMETIMES ☒ SELDOM ■ USUALLY

FIELD SENSITIVE	DATES OF OBSERVATION
RELATIONSHIP TO PEERS	
1. Likes to work with others to achieve a common goal.	
2. Like to assist others.	
3. Is sensitive to feelings and opinions of others.	
PERSONAL RELATIONSHIP TO TEACHER	
1. Openly expresses positive feelings for teacher.	
2. Asks questions about teacher's tastes and personal experiences; seeks to become like teacher.	
INSTRUCTIONAL RELATIONSHIP TO TEACHER	
1. Seeks guidance and demonstration from teacher.	
2. Seeks rewards which strengthen relationship with teacher.	
3. Is highly motivated when working individually with teacher.	
THINKING STYLE	
1. Functions well when objectives are carefully explained or modelled prior to activity or lesson.	
2. Deals well with concepts presented in humanized or story format.	
3. Functions well when curriculum content is made relevant to personal interests and experiences.	

FIELD INDEPENDENT	DATES OF OBSERVATION
RELATIONSHIP TO PEERS	
1. Prefers to work independently.	
2. Likes to compete and gain individual recognition.	
3. Task oriented; is inattentive to social environment when working.	
PERSONAL RELATIONSHIP TO TEACHER	
1. Avoids physical contact with teacher.	
2. Formal: interactions with teacher are restricted to tasks at hand.	
INSTRUCTIONAL RELATIONSHIP TO TEACHER	
1. Likes to try new tasks without teacher's help.	
2. Impatient to begin tasks; likes to finish first.	
3. Seeks non-social rewards.	
THINKING STYLE	
1. Focuses on details and parts of things.	
2. Deals well with math and science concepts.	
3. Likes discovery or trial-and-error learning.	

FIGURE 4

FIELD SENSITIVE TEACHING BEHAVIORS	FIELD INDEPENDENT TEACHING BEHAVIORS
CATEGORY: Instructional Behaviors	CATEGORY: Instructional Behaviors
1. Express confidence in student's ability to succeed.	1. Encourage independent student achievement; emphasize the importance of individual effort.
2. Give guidance to the students; make purpose of activities obvious.	2. Encourage competition.
3. Encourage learning through modeling; ask students to imitate what you say or do.	3. Adopt a consultant role; encourage students to seek help only when they experience difficulty.
4. Encourage cooperation and development of group feeling; encourage students to think and work as a group.	4. Encourage learning through exploration and discovery.
5. Provide opportunities for students to see how the activities are related to their personal experiences.	5. Encourage task orientation; focus student attention on assigned tasks.
CATEGORY: Thinking Style	CATEGORY: Thinking Style
1. Before beginning an activity, ensure that students understand the "performance objectives," that is, give an overview or show a sample of what they will be doing.	1. Focus on details of curriculum materials.
2. Personalize curriculum; relate curriculum materials to your own interests and personal life as well as to those of the children.	2. Focus on facts and concepts.
3. Humanize curriculum; teach concepts through stories and anecdotes involving human (or humanized) characters in recognizable or familiar social settings.	
CATEGORY: Personal Behaviors	CATEGORY: Personal Behaviors
1. Display physical and verbal expressions of approval and warmth.	1. Somewhat formal in relationship with the students, center attention on the tasks and activities.
2. Use personal rewards which strengthen the relationship with the students.	